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(54) COMPOSITION COMPRISING A MIXTURE OF ALKOXYLATED MONO-, DI- AND TRIGLYCERIDES AND GLYCERINE

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(56) References Cited

U.S. PATENT DOCUMENTS

2,678,935 * 5/1954 Sundberg et al. 260/410.6
3,435,024 * 3/1969 Noble et al. 260/210
4,115,415 * 9/1978 Yoshitake et al. 260/410
4,600,539 * 7/1986 Hoppe et al. 260/410.7
4,681,900 * 7/1987 Iwasaki 514/786
4,861,613 * 8/1989 White et al. 426/611
4,983,329 * 1/1991 Cooper 260/410.7
5,175,323 * 12/1992 Cooper 554/164
5,399,728 * 3/1995 Cooper 554/149
5,610,130 * 3/1997 Thomas et al. 510/383
5,665,689 * 9/1997 Durbut 510/365
5,861,367 * 1/1999 Blanvalet et al. 510/365

FOREIGN PATENT DOCUMENTS

0 579 887 A1 1/1994 (EP)

0 586 323 A1 3/1994 (EP)
1045021 * 10/2000 (EP)
WO 95/23204 * 8/1995 (WO)
WO 98/16605 4/1998 (WO)

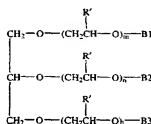
* cited by examiner

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(57) ABSTRACT

The present invention relates to a composition comprising a mixture of alkoxyated mono-, di-, and triglycerides and glycerine of the following formula



R' representing H or CH₃, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of from 1 to 4, each of B1, B2, and B3 representing H or



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms; and the weight ratio of triglyceride/diglyceride/monoglyceride being 46 to 90/9 to 35/1 to 15.

The invention also relates to methods for the preparation of this composition, to detergent compositions comprising this composition, and to the use of the composition as surfactant or co-surfactant in detergent compositions.

11 Claims, No Drawings